53. (New) An isolated nucleic acid encoding a polypeptide comprising a sequence selected from the group consisting of:

(a) SEQ ID NO:2;

(b) sequences at least 80% identical to SEQ ID NO:2, wherein the polypeptide is capable of binding to and/or being phosphorylated by a GNK polypeptide having the sequence SEQ ID NO:4; and

(c) fragments of (a) or (b), wherein the polypeptide is capable of binding to and/or being phosphorylated by a GNK polypeptide having the sequence SEQ ID NO:4.

54. (New) An isolated nucleic acid comprising a sequence selected from the group consisting of:

(a) SEQ ID NO:1;

(b) nucleotides 75-2549 of SEQ ID NO:1;

(c) sequences that are at least 80% identical to (a) or (b), and encode a polypeptide that is capable of binding to and/or being phosphorylated by a GNK polypeptide having the sequence SEQ ID NO:4;

(d) sequences that are capable of hybridizing to (a) or (b) under conditions of moderate stringency, and encode a polypeptide that is capable of binding to and/or being phosphorylated by a GNK polypeptide having the sequence SEQ ID NO:4; and

(e) sequences that are degenerate, as a result of the genetic code, to the sequences of (a), (b), (c), or (d).

55. (New) The nucleic acid of claim 53, selected from the group consisting of:

(a) nucleic acids encoding a polypeptide having the sequence SEQ ID NO:2; and

(b) nucleic acids comprising nucleotides 75-2549 of SEQ ID NO:1.

56. (New) A recombinant expression vector comprising a promoter operably linked to a nucleic acid according to claim 53.

57. (New) A host cell into which the recombinant expression vector of claim 56 has been introduced.

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58. (New) A method for producing an sGNK polypeptide comprising culturing the host cell of claim 57 under conditions that promote expression of the polypeptide.

59. (New) An sGNK polypeptide produced according to the method of claim 58.

60. (New) An isolated sGNK polypeptide encoded by a nucleic acid according to claim 54.

61. (New) An isolated sGNK polypeptide comprising a sequence selected from the group consisting of:

(a) SEQ ID NO:2;

(b) sequences at least 80% identical to SEQ ID NO:2, wherein the polypeptide is capable of binding to and/or being phosphorylated by a GNK polypeptide having the sequence SEQ ID NO:4; and

(c) fragments of (a) or (b), wherein the polypeptide is capable of binding to and/or being phosphorylated by a GNK polypeptide having the sequence SEQ ID NO:4.

62. (New) The polypeptide of claim 61 comprising the sequence of SEQ ID NO:2.

63. (New) A sGNK polypeptide selected from the group consisting of:

(a) oligomers comprising at least one polypeptide according to claim 61; and

(b) conjugates comprising at least one polypeptide according to claim 61.

64. (New) A method of identifying a compound that modulates a protein-protein interaction between the sGNK polypeptide of claim 61 and a GNK polypeptide, comprising:

(a) contacting a candidate compound with the sGNK and GNK polypeptides under conditions permitting the interaction of the polypeptides; and

(b) measuring the ability of the candidate compound to modulate the protein-protein interaction.

65. (New) A method of identifying a compound that modulates phosphorylation of the sGNK polypeptide of claim 61 by a GNK polypeptide, comprising:

(a) contacting a candidate compound with the sGNK and GNK polypeptides under conditions permitting phosphorylation of sGNK by GNK; and

(b) measuring the ability of the candidate compound to modulate the phosphorylation of sGNK by GNK.

66. (New) A method of identifying a compound that modulates vascularization comprising:

(a) contacting a candidate compound with the sGNK polypeptide of claim 61 and a GNK polypeptide; and

(b) measuring the ability of the candidate compound to modulate a biological activity of the sGNK and/or GNK polypeptides.

67. (New) A homologous recombination vector comprising a nucleotide sequence substantially similar to SEQ ID NO:3, the sequence differing from SEQ ID NO:3 by the addition, deletion, or substitution of one or more nucleotides to prevent expression of a polypeptide with vascularization regulatory capability, structurally linked to one or more selectable marker genes.

68. (New) The homologous recombination vector of claim 67 wherein at least one selectable marker gene confers resistance to G418.

69. (New) The homologous recombination vector of claim 67 wherein at least one selectable marker gene confers sensitivity to ganciclovir.

70. (New) A method of generating GNK-deficient cells comprising:

(a) introducing the homologous recombination vector of claim 67 into a cell;

(b) selecting for cells into which the homologous recombination vector has been introduced;

(c) propagating the selected cells; and

(d) monitoring the propagated cells for GNK expression.